III Remarks

In the Office Action, the examiner has raised objections to the Petition to Correct Inventorship and rejected pending claims 1–20 as discussed below.

A. Applicant's Response to Objection to Petition to Correct Inventorship

In the Office Action, the examiner wrote:

> The petition to correct the inventorship of this application under 37 CFR 1.48(a) is deficient because it lacks the required fee under 37 CFR 1.17(i) and it lacks the written consent of the assignee (in this case Scott Environmental Services).
>
> As it appears that a party required by 37 CFR 1.48(a)(2) to submit a statement of facts may not be willing to submit such statement, applicant should consider either: a) a submission of a petition under 37 CFR 1.183 to waive that requirement of the original named inventor(s) has assigned the entire right and interest to an assignee who has given its consent to the requested inventorship correction, MPEP § 201.03, Statement of Lack of Deceptive Invention, or b) refiling the application (where addition is needed under 37 CFR 1.53(b) with a new oath or declaration and any necessary petition under 37 CFR 1.47, or where only deletion is needed, either under 37 CFR 1.53(b) utilizing a copy of a prior oath or declaration under 37 CFR 1.63(d)(1)(iv), or under 37 CFR 1.53(d))(design applications only), thereby eliminating the need for a 37 CFR 1.48 request.

Applicant disagrees with the examiner's statement that "the petition to correct the inventorship in this application under 37 CFR 1.48(a) is deficient because it lacks the required fee under 37 CFR § 1.17(I)."

With *Applicant's Amendment Request and Fee to Add To Original Erroneously Not Named Inventors In Nonprovisional Application* filed October 14, 2004 (the October 14, 2004, Amendment and Response) Applicant submitted a $130.00 payment and an *Authorization To Charge Deposit Account* ("*Authorization*"). Accordingly, if Applicant's payment was deficient, the Deposit Account should have been charged for the deficiency. Copies of the transmittal paper for the October 14, 2004, Amendment and Response, setting forth on page 3 the *Authorization* and the return postcard acknowledging receipt of the October 14, 2004, *Amendment and Response* with the *Authorization* are attached hereto as **EXHIBIT A**.

In the event that the *Authorization* submitted on October 14, 2004, and attached as **EXHIBIT A** cannot be used to authorize charging an underpayment or crediting an overpayment associated

with the *Amendment and Response* being filed on May 17, 2005, Applicant has included a new *Authorization To Charge Deposit Account* below the Certificate of Mailing on the transmittal paper for the May 17, 2005 filing.

Applicant's *Amendment and Response* includes as **EXHIBIT B** an *Assent of Assignee (Scott Environmental Services, Inc.) To Amendment, Request and Fee To Add To Original Erroneously Not Named Inventors In—Nonprovisional Application (37 CFR § 1.48(a).* The *Assent* is executed by Mr. J. Blake Scott, Vice President of Scott Environmental Services, who is authorized to execute the *Assent* on behalf of Assignee.

B. Applicant's Response to Rejection of Claims 1–20 under 35 U.S.C. § 102 (a, b and e) as Anticipated by or, in the Alternative under 35 U.S.C. § 103(a) as Obvious over United States Patent No. 6,706,108 B2 to Polston

The examiner has rejected claims 1–20 under 35 U.S.C. § 102 (a, b and e) as anticipated by, or in the alternative under 35 U.S.C. § 103(a), as obvious over United States Patent No. 6,706,108 B2 to Polston. The examiner's reasons in support of the rejection are as follows:

> Polston teaches a method of making a road base (*i.e.*, "load bearing structure") by mixing drill cuttings and pozzolan and thus anticipates [Applicant's] instantly claimed inventions. Even if not anticipated, overlapping ranges of amounts would have been *prima facie* obvious to one of ordinary skill in the art.
>
> Further, the alleged new matter limitation of "said load bearing structure having sufficient resistance to rutting that any rut formed in such surface by 10,000 applications of a single axle load of 18,000 pounds will have a depth of rutting that is less than 1 inch" even if not new matter, would have been [an] expected property since the prior contains the same exact components and also mixes to form a load bearing — — —

1. Applicant's claimed process

Applicant claims a process for constructing load-bearing structures incorporating drilling cuttings. In Applicant's claim 1, the process comprises the steps of:

> (1) forming a particulate mixture comprising drilling cuttings; and. . .
> (2.1.1) mixing said particulate mixture comprising drilling cuttings with at least one stabilizer selected from [a selected group of stabilizers]
> ...
> to form a cementitious second mixture,
> (2.1.2) forming said cementitious second mixture into the shape and size of the load-bearing structure; and
> (2.1.3) causing the shaped and sized second mixture formed in suboperation (2.1.2) to undergo a pozzolanic reaction to form said load-bearing structure,
> said load-bearing structure having sufficient resistance to rutting that any rut formed in such surface by 10,000 applications of a single axle load of 18,000 pounds will have a depth of rutting that is less than 1 inch. . . .

The remaining process claimed in claim 1 relates to the use of asphalt. That process comprises the steps of:

> (2.2.1) mixing said particulate mixture comprising drilling cuttings with at least one of foamed asphalt and emulsified asphalt to form an asphaltic second mixture;
> (2.2.2) forming said asphaltic second mixture into the shape and size of the load-bearing structure; and
> (2.2.3) causing the shaped and sized asphaltic second mixture formed in suboperation (2.2.2) to form the load-bearing structure by curing said shaped asphaltic second mixture,
> said load-bearing structure having sufficient resistance to rutting that any rut formed in such surface by 10,000 applications of a single axle load of 18,000 pounds will have a depth of rutting that is less than 1 inch.

Applicant's claimed invention has as its objective the conversion and incorporation of drilling cuttings and mixtures of the cuttings with drilling mud into excellent high-load-bearing civil engineering structures, such as vehicle roads and drilling pads, by the processes of the invention. (*See* Summary of the Invention in the present and priority applications).

In contrast, the process of the invention of United States Patent No. 6,706,108 B2 to Polston (the "Polston patent" or "Polston") attempts to isolate oil and waste material from the environment within a stabilized roadbed (*see* column 3, lines 19–49). In order to accomplish the objective, *i.e.*, preventing the waste materials from leaching into the soil after the waste materials

and road base component materials are mixed, the mixed materials are deposited in the ground and may be contained by a berm or an impervious layer for curing. Leach testing may be carried out on the final product (column 8, lines 16–27). **FIGURE 1** also references the presence of the impervious layer (19), that is, a layer incapable of being penetrated by the waste materials.

2. The rejection of claims 1–20 under 35 U.S.C. § 102(a, b and e) should be withdrawn

Section 2112 of the ***Manual of Patent Examining Procedure*** ("MPEP") sets forth the following requirements for a rejection based on inherency as well as the burden of proof to be met.

> The fact that a certain result or characteristic ***may*** occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950–51 (Fed. Cir. 1999) (citations omitted) (The claims were drawn to a disposable diaper having three fastening elements. The reference disclosed two fastening elements that could perform the same function as the three fastening elements in the claims. The court construed the claims to require three separate elements and held that the reference did not disclose a separate third fastening element, either expressly or inherently.).
>
> "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic ***necessarily*** flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) (Applicant's invention was directed to a biaxially oriented, flexible dilation catheter balloon (a tube which expands upon inflation) used, for example, in clearing the blood vessels of heart patients). The examiner applied a U.S. patent to Schjeldahl which disclosed injection molding a tubular preform and then injecting air into the preform to expand it against a mold (blow molding). The reference did not directly state that the end product balloon was ***biaxially oriented***. It did disclose that the balloon was "formed from a thin flexible inelastic, high tensile strength, biaxially oriented synthetic plastic material." *Id.* at 1462 (emphasis in original). The examiner argued that

> Schjeldahl's balloon was inherently biaxially oriented. The Board reversed on the basis that the examiner did not provide objective evidence or cogent technical reasoning to support the conclusion of inherency.).

As the examiner has not met these requirements in the rejection of claims 1–20 based on inherency, the rejection of claims 1–20 under 35 U.S.C. § 102(a, b and e) over Polston is untenable and should be withdrawn.

3. The rejection under 35 U.S.C. § 103(a) should be withdrawn

Section 2143.03 of the MPEP sets forth the following requirements to establish a *prima facie* case of obviousness:

> To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

As the examiner has not made such a *prima facie* case of obviousness of claims 1–20, the rejection of claims 1–20 under 35 U.S.C. § 103(a) over Polston is untenable and should be withdrawn.

C. Applicant's Response to Rejection Under 35 U.S.C. § 112, First Paragraph, and 35 U.S.C. § 132

The examiner has rejected claims 1–20 under 35 U.S.C. § 112, first paragraph, and 35 U.S.C. § 132 as new matter because the specification as originally filed purportedly does not provide support for the invention as now claimed. In support of the rejection, the examiner merely makes note of the supposed "newly added limitation" and quotes it:

> The newly added limitation "said load bearing structure having sufficient resistance to rutting that any rut formed in such surface by 10,000 applications of a single axle load of 18,000 pounds will have a depth of rutting that is less than 1 inch."

(Action at p. 3, last paragraph)

Applicant disagrees with the examiner's contention that the quoted limitation of claim 1 is new matter and is not supported by the specification as originally filed.

1. <u>The quoted limitation is taken from the specification</u>

The quoted limitation is, in fact, not newly added but is set forth in the specification of the present application at page 27, lines 3–6 and at page 25, lines 8–12. Page 27, lines 3–6 read as follows:

> The thickness values recommended in Table 2 can accommodate at least 10,000 applications of the design load with less than 1 inch depth of rutting. (These values were compared to those found using the U.S. Army Corps of Engineers granular base rutting model and found to be at least as large as those recommended by that model.)

The definition of "design load" as "a single axle load of 18,000 pounds" is set forth in the specification at page 25, lines 8–12, and is reproduced directly below:

> A factorial LEM analysis was performed considering the effects of four variables: the number of load applications, subgrade strength, structural layer thickness, and structural layer strength and modulus. The design load was defined as an 18,000 pound single axle load, which is expected to result in a structure that is fully satisfactorily strong, stiff, and durable for a normal deep drilling pad or lease road needed in connection with deep drilling.

Support is provided at page 20, lines 14–17 and page 21, lines 1–4 of United States Provisional Application No. 60/311,439 filed August 10, 2001, from which the present application claims priority.

2. Additional support in the specification

The discussion of the layered elastic model analysis used in ascertaining whether Applicant's claimed load-bearing structure meets the referenced limitation is described in the specification at page 24, line 16, to page 27, line 11, in connection with "target engineering properties and structural thickness requirements." A similar disclosure is found in United States Provisional Application No. 60/311,439 at page 19, line 14 to page 21, line 4. As noted above, the results in **Table 2** set forth at pages 26–27 of the present application and at the top of page 21 of United States Provisional Application No. 60/311,439 disclose thickness values that will "accommodate" the limitation.

3. The rejection under 35 U.S.C. § 112, first paragraph, should be withdrawn

Section 2163.02 of the MPEP sets forth the following requirements for rejection under 35 U.S.C. § 112, first paragraph, on the basis of a lack of support for the claimed subject matter in the disclosure:

> The courts have described the essential question to be addressed in a description requirement issue in a variety of ways. An objective standard for determining compliance with the written description requirement is, "does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed" *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Under *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991), to satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and that the invention, in that context, is whatever is now claimed. The test for sufficiency of support in a parent application is whether the disclosure of the application relied upon "reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter." *Ralston Purina Co. v. Far-Mar-Co., Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985) (quoting *In re Kaslow*, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983)).
>
> Whenever the issue arises, the fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. *See, e.g., Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). An applicant shows possession of the claimed invention by describing the claimed

> invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Possession may be shown in a variety of ways including description of an actual reduction to practice, or by showing that the invention was "ready for patenting" such as by the disclosure of drawings or structural chemical formulas that show the invention was complete, or by describing distinguishing identifying characteristics sufficient to show that the applicant was in possession of the claimed invention. *See, e.g., Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 68, 119 S.Ct. 304, 312, 48 USPQ2d 1641, 1647 (1998).

As the examiner has not met these requirements in the rejection of claims 1–20 based on 35 U.S.C. § 112, first paragraph, that rejection is untenable and should be withdrawn.

4. The rejection under 35 U.S.C. § 132 based on the addition of new matter should be withdrawn

Section 2163.06 of the MPEP sets forth the following relationship of the written description requirement to new matter:

> Lack of written description is an issue that generally arises with respect to the subject matter of a claim. If an applicant amends or attempts to amend the abstract, specification or drawings of an application, an issue of new matter will arise if the content of the amendment is not described in the application as filed. Stated another way, information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter.

As noted above, the claim limitation objected to is supported by information contained in the specification. Accordingly, the rejection of claims 1–20 based on 35 U.S.C. § 132 is untenable and should be withdrawn.

IV Conclusion

It is believed that the above Amendment and Remarks constitute a complete response under 37 CFR § 1.111 and that all bases of rejection in the Examiner's Action have been adequately rebutted or overcome. A Notice of Allowance in the next Office Action is, therefore, respectfully requested. The Examiner is requested to telephone the undersigned attorney if any matter that can be expected to be resolved in a telephone interview is believed to impede the allowance of pending claims 1–20 of United States Patent Application Serial No. 10/037,630.

Respectfully submitted,

Date: May 17, 2005

John S. Child, Jr.
PTO Registration No. 28,833
Dann Dorfman Herrell and Skillman
1601 Market Street, Suite 2400
Philadelphia, PA 19103-2307
TELEPHONE: 215-563-4100
FACSIMILE: 215-563-4044
Attorneys for Scott Environmental Services, Inc.

Correspondence Address
Customer No. 000110
John S. Child, Jr., Esquire
Dann Dorfman Herrell and Skillman
1601 Market Street, Suite 2400
Philadelphia, PA 19103-2307